

#### ABSTRACT OF THE DISCLOSURE

A semiconductor apparatus in which flip chip bonding is enabled without any underfill, and which comprises a semiconductor device, an electrically insulating layer formed on the semiconductor device by mask-printing an electrically insulating material containing particles, and an external connection terminal formed on the electrically insulating layer and electrically connected with an electrode of the semiconductor device. The electrically insulating layer is formed with a thickness so as to provide  $\alpha$ -ray shielding of the semiconductor device.